



FOSPHB-RFP-13-25/26



PRICING SCHEDULE / SCHEDULE OF QUANTITIES (BOQ)
SUPPLY, INSTALLATION AND COMMISSIONING OF (MS-1) : XLPE (PEX) CABLES

Item	Job Description	UOM	Qty	Total Cost for Material	Total Cost for Labour	Total Cost for Material and Labour
A	Excavation outside the Wegsteek Substation			R		-
1	Excavate the area (to be made by Foskop) outside the Wegsteek substation to expose three cable joints of 3x185mm ² XLPE cables currently feeding the PSZ substation from 3 Wegsteek 11kV feeder breakers (T1-F1, T2-F1 and T3-F1).	Job	1			R -
B	Cable Works - Wegsteek Feeder 1 to MS-1 (T1-F1)			R		-
1	Identify the cable feeding the PSZ substation from the Wegsteek T1-F1 breaker and two (2x) currently unused cables that were previously installed between the Wegsteek T1-F1 and the MS-1 incomer breaker, then do the following: 1. Cut the T1-F1 feeder cable to PSZ at the joint identified , pull the cable back and join (on the cable rack) to the cable going to the MS-1 incomer 1 breaker. Contractor to supply the cable joint. 2. Prepare two 2x new outdoor terminations and re-terminate the currently unused cables that were reviously installed at the Wegsteek T1-F1 end of the cables. Contractor to supply the outdoor termination kits required.	Job	1			R -
2	Cut (from the cable rack) the 3x MS-1 incomer 1 (Wegsteek T1-F1) cables above , on the MS-1 side of the cable ends and remove the cables from the cable rack.	Job	1			R -
3	Transport to site from the TSS Electrical workshop a 60m free issue , 185mm², XLPE cable	Job	1			R -
4	Join (on the cable rack) to each of the 3x MS-1 incomer 1 cables and terminate (at the MS-1 incomer 1 panel) 3x new cable ends . Contractor to supply all cable joints and indoor terminations required.	Job	1			R -
5	Neatly strap all the installed cables on the existing cable rack with the correct size heavy duty stainless steel cable ties	Job	1			R -
6	Paint all three cables 3m inside and outside the MS-1 substation and at the cable joints with a fire retardant paint	Job	1			R -
7	Conduct housekeeping for all the removed cables and use the correct bins for copper waste	Job	1			R -
8	Other: please specify					R -
9	Notes: Upon award, contractor to specify the need, amount/qty and duration of scaffolding required (if so) to perform the scope above					
C	Cable Works - Wegsteek Feeder 2 to MS-1 (T2-F1)			R		-
1	Identify the cable feeding the PSZ substation from the Wegsteek T2-F1 breaker and two (2x) currently unused cables that were previously installed between the Wegsteek T2-F1 and the MS-1 incomer breakers, then do the following: 1. Cut the T2-F1 feeder cable to PSZ at the joint identified , pull the cable back and join (on the cable rack) to the cable going to the MS-1 incomer 2 breaker. Contractor to supply the cable joint. 2. Prepare two 2x new outdoor terminations and re-terminate the currently unused cables that were reviously installed at the Wegsteek T2-F1 end of the cables. Contractor to supply the outdoor termination kits required.	Job	1			R -
2	Cut (from the cable rack) the 3x MS-1 incomer 2 (Wegsteek T2-F1) cables above , on the MS-1 side of the cable ends and remove the cables from the cable rack.	Job	1			R -
3	Transport to site from the TSS Electrical workshop a 60m free issue, 185mm², XLPE cable	Job	1			R -
4	Join (on the cable rack) to each of the 3x MS-1 incomer 2 cables and terminate (at the MS-1 incomer 2 panel) 3x new cable ends . Contractor to supply all cable joints and indoor terminations required.	Job	1			R -
5	Neatly strap all the installed cables on the existing cable rack with the correct size heavy duty stainless steel cable ties	Job	1			R -
6	Paint all three cables 3m inside and outside the MS-1 substation and at the cable joints with a fire retardant paint	Job	1			R -
7	Conduct housekeeping for all the removed cables and use the correct bins for copper waste	Job	1			R -
8	Other: please specify					R -
9	Notes: Upon award, contractor to specify the need, amount/qty and duration of scaffolding required (if so) to perform the scope above					

D	Cable Works - Wegsteek Feeder 3 to MS-1 (T3-F1)			R		-	
1	Identify the cable feeding the PSZ substation from the Wegsteek T3-F1 breaker and two (2x) currently unused cables that were previously installed between the Wegsteek T3-F1 and the MS-1 incomer breakers, then do the following: 1. Cut the T3-F1 feeder cable to PSZ at the joint identified , pull the cable back and join (on the cable rack) to the cable going to the MS-1 incomer 3 breaker. Contractor to supply the cable joint. 2. Prepair two 2x new outdoor terminations and re-terminate the currently unused cables that were reviously installed at the Wegsteek T3-F1 end of the cables. Contractor to supply the outdoor termination kits required.	Job	1			R	-
2	Cut (from the cable rack) the 3x MS-1 incomer 3 (Wegsteek T3-F1) cables above , on the MS-1 side of the cable ends and remove the cables from the cable rack.	Job	1			R	-
3	Transport to site from the TSS Electrical workshop a 60m, free issue, 185mm², XLPE cable	Job	1			R	-
4	Join (on the cable rack) to each of the 3x MS-1 incomer 3 cables and terminate (at the MS-1 incomer 3 panel) 3x new cable ends . Contractor to supply all cable joints and indoor terminations required.	Job	1			R	-
5	Neatly strap all the installed cables on the existing cable rack with the correct size heavy duty stainless steel cable ties	Job	1			R	-
6	Paint all three cables 3m inside and outside the MS-1 substation and at the cable joints with a fire retardant paint	Job	1			R	-
7	Conduct housekeeping for all the removed cables and use the correct bins for copper waste	Job	1			R	-
8	Other: please specify					R	-
	Notes: Upon award, contractor to specify the need, amount/qty and duration of scaffolding required (if so) to perform the scope above						
E	PSZ feeders			R		-	
1	Supply and install on the existing structure a 150m long cable rack for the installation of five (5x) 3x185mm² XLPE cables (3x for the PSZ cables and an additional space for 2x future cables installation)	Job	1			R	-
2	Transport to site from the TSS Electrical workshop 3x1500m long, free issue, 3x185mm² XLPE cables	Job	1			R	-
3	Install on a new cable rack above, 3 new 150m, 3x185mm² XLPE cables to PSZ. Join the 3x cables to the open end of the PSZ cables (at the excavation) and terminate at the 3x MS-1 PSZ feeder panels. Contractor to supply all the cable joints and indoor terminations required.	Job	1			R	-
4	Neatly strap all the installed cables on the cable rack with the correct size heavy duty stainless steel cable ties	Job	1				
5	Paint all three cables 3m inside and outside the MS-1 substation and at the cable joints with a fire retardant paint	Job	1			R	-
6	Other: please specify					R	-
F	Drier 4&5 feeder (MS-2 R5 to MS-1)			R		-	
1	Remove the cable terminated behind the MS-2 PNL R5 (Driers 4&5 panel) switchgear. Trace the cable to outside the MS-2 substation and cut it on the cable rack at the MS-2 area.	Job	1			R	-
2	At the MS-1 substation area, measure on the cable rack the length of cable (passing by the substaion to MS-2) required to terminate the cable inside the MS-1 substation behind the new Driers 4&5 panel. Re-route the measured length of the Driers 4&5 cable and terminate inside the MS-1 substation behind the new Driers 4&5 panel. Contractor to supply the indoor cable terminations required.	Job	1			R	-
3	Neatly strap the rerouted cable on the cable rack with the correct size heavy duty stainless steel cable ties	Job	1				
4	Paint the cable 3m inside and outside the MS-1 substation with a fire retardant paint	Job	1				
5	Conduct housekeeping for all the removed cables and use the correct bins for copper waste	Job	1			R	-
6	Other: please specify					R	-
G	Conveyor 101 feeder (MS-2 C6 to MS-1)			R		-	
1	Remove the cable terminated behind the MS-2 PNL C6 (Conv. 101) switchgear. Trace the cable to outside the MS-2 substation and cut it on the cable rack close to the Driers 4&5 cable cut in section F above.	Job	1			R	-
2	Join the Conv. 101 and the old Driers 4&5 cables together	Job	1			R	-
3	Transport to site from the TSS Electrical workshop a 25m long, free issue, 3x185mm² XLPE cable	Job	1			R	-
4	Install on the cable rack (at the MS-1 area where the Driers 4&5 cable was removed/cut) a new 25m, 3x185mm2 XLPE cable end , join to the open end of the old Driers 4&5 cable to MS-2 and terminate inside the MS-1 substation behind the new Conv. 101 panel. Contractor to supply the cable joint and indoor termination required.	Job	1			R	-
5	Neatly strap the installed cable on the cable rack with the correct size heavy duty stainless steel cable ties	Job	1			R	-
6	Paint the cable 3m inside and outside the MS-1 substation and at the cable joint with a fire retardant paint	Job	1			R	-
7	Other: please specify						

H	Sec. East (MS-2 C3 to MS-1)			R -		
1	Remove the cable terminated behind the MS-2 PNL C3 (Sec. East) switchgear. Trace the cable to outside the MS-2 substation and cut it on the cable rack at the MS-2 area.	Job	1			
2	Transport to site from the TSS Electrical workshop a 350m long , free issue, 3x185mm² XLPE cable	Job	1			
3	Install on the existing cable rack a 350m long, 3x185mm² XLPE cable between the MS-1 and MS-2 substations, join to the open end of the Sec. East cable and terminate inside the MS-1 substation behind the new Sec. East panel. Contractor to supply the cable joint and indoor termination required.	Job	1			
4	Neatly strap the installed cable on the cable rack with the correct size heavy duty stainless steel cable ties	Job	1			
5	Paint the cable 3m inside and outside the MS-1 substation and at the cable joint with a fire retardant paint	Job	1			
6	Other: please specify					
I	Sec. West Feeder - PNL2 (new cable)			R -		
1	Supply and Install three (3) new cable racks and supports as follows: 1. A 35m long cable rack between the Secondary West 11kV Substation and the overhead line 2. A 30m long cable rack on 1m high concrete pillars (above ground) between the overhead line and the plant structure 3. A 100m long cable rack on the existing plant structure	Job	1			
2	Transport to site from the TSS Electrical workshop 4 drums of 400m long, free issue, 3x185mm² XLPE cables	Job	1			
3	Install (on the cable racks) and terminate on both ends of each cable, two (2) lengths of 185mm² XLPE cables as follow: 1. A 35m long cable between the Secondary West 11kV Substation and the overhead line 2. A 1.3km long cable between the overhead line and the MS-1 Substation	Job	1			
4	Neatly strap the installed cable on the cable rack with the correct size heavy duty stainless steel cable ties	Job	1			
5	Paint the cable 3m inside and outside the MS-1 and the Sec. West substations and at all the cable joints along the length of the cable with a fire retardant paint	Job	1			
6	Design, supply (all equipment and material) and install a 350m long, 11kV overheadline with the earth continuityconductor and the gang operated switches on both ends. Details of the design to be shared with the Foskor engineer prior to installation.	Job	1			
7	Other: please specify					
J	Primary East & Overland conv. Feeder - PNL3 (new cable)			R -		
1	Identify (at MS-1) the installed cable that was previously used to feed the Prim. East substation. Cut (at the cable rack) the cable end of the cable identified and remove from the cable rack.	Job	1			
2	Transport to site from the TSS Electrical workshop a 25m long, free issue, 3x185mm² XLPE cable	Job	1			R -
3	Install on the cable rack (at the MS-1 area where the Prim. East cut) a new 25m, 3x185mm² XLPE cable end, join to the open end of the Prim. East cable and terminate inside the MS-1 substation behind the new Prim. East panel. Contractor to supply the cable joint and indoor termination required.	Job	1			
5	Neatly strap the installed cable end to the cable rack with the correct size heavy duty stainless steel cable ties	Job	1			
6	Paint the cable 3m inside and outside the MS-1 substation and at all the cable joint with a fire retardant paint	Job	1			
7	Conduct housekeeping for the removed cable and use the correct bin for copper waste	Job	1			
6	Other: please specify					
K	Compressors RMU Feeder (new cable)			R -		
1	Transport to site from the TSS Electrical workshop a 120m long, 3x185mm², free issue cable XLPE cable	Job	1			
2	Install and terminate between the MS-1 substation and the Compressors RMU a 120m, 3x185mm² XLPE cable. Contractor to supply the cable terminations required.	Job	1			
3	Supply, Install and terminate between the MS-1 feeder Panel relay for bay 82 and the bay 82 transformer a 120m, 12x2.5mm² PVCA cable. Contractor to supply the cable terminations required.					
4	Neatly strap the installed cable to the cable rack with the correct size heavy duty stainless steel cable ties	Job	1			
5	Paint the cable 3m inside and outside the MS-1 substation with a fire retardant paint	Job	1			
6	Other: please specify					
L	Workshops Transformer			R -		
1	Transport to site from the TSS Electrical workshop a 200m long, 3x185mm², free issue XLPE cables	Job	1			

2	Install and terminate between the MS-1 substation and the Workshops transformer a 200m, 3x185mm² XLPE cable . Contractor to supply the cable terminations required.	Job	1			
3	Supply, Install and terminate between the MS-1 feeder Panel relay for bay 81 and the bay 81 transformer a 200m, 12x2.5mm² PVCA cable . Contractor to supply the cable terminations required.					
4	Neatly strap the installed cable to the cable rack with the correct size heavy duty stainless steel cable ties	Job	1			
5	Paint the cable 3m inside and outside the MS-1 substation with a fire-retardant paint	Job	1			
6	Other: please specify					
M	Kwena (or equivalent) anti-theft earthing conductor installations			R	-	
1	Supply, install on the cable rack, lug and terminate three (3) 120m earthing conductors (70mm² copper equivalent in size) between the three (3) Wegsteek feeder breakers to MS-1 and the MS-1 incomer breakers	Job	1			
2	Supply, install on the cable rack, lug and terminate three (3) 300m earthing conductors (70mm² copper equivalent) between the MS-1 feeder breakers and the PSZ incomer breakers	Job	1			
3	Supply, install on the cable rack, lug and terminate a 500m earthing conductor (70mm² copper equivalent) between the MS-1 feeder breaker and the Drier 4&5 incomer breaker	Job	1			
4	Supply, install on the cable rack, lug and terminate an 2200m earthing conductor (70mm² copper equivalent) between the MS-1 feeder breaker and the Conv. 101 substation incomer breaker	Job	1			
5	Supply, install on the cable rack, lug and terminate a 1600m earthing conductor (70mm² copper equivalent) between the MS-1 feeder breaker and the Sec. East substation incomer breaker	Job	1			
6	Supply, install on the cable rack, lug and terminate a 1300m earthing conductor (70mm² copper equivalent) for the MS-1 to Sec. West substation feeder	Job	1			
7	Supply, install on the cable rack, lug and terminate a 2000m earthing conductor (70mm² copper equivalent) between the MS-1 feeder breaker and the Prim. East & Overland substation incomer breaker	Job	1			
8	Supply, install on the cable rack, lug and terminate a 120m earthing conductor (70mm² copper equivalent) between the MS-1 feeder breaker and the Second Compressor RMU incomer	Job	1			
9	Supply, install on the cable rack, lug and terminate a 200m earthing conductor (70mm² copper equivalent) between the MS-1 feeder breaker and the Workshops transformer at Bay 81	Job	1			
N	Test and Commissioning			R	-	
1	Test and prove the installation as per SANS 10198 requirements. All test reports must be handed over after the installation and commissioning.	Job	1			
2	Other: please specify					
O	Miscellaneous and General			R	-	
1	Foskor Permit clearance, Safety file, Medicals and mandatory safety training	sum	1			
2	Other (please specify)					
	Total Project Value for Supply of and installation (Excl. Vat)			R	-	
	VAT 15% (if applicable)					
	Unconditional Discounts if applicable					
	Total Inclusive of VAT					

NOTES:

The above Foskor pricing schedule must be used for the pricing

The onus lies with the tenderer to make sure that all formulas and calculations are correct.

Calculation errors discovered during the evaluation process will be logged as a non-conformance and the tender/quotation will therefore be disregarded

All price alterations must be signed for by the bidder confirming that such changes were made by the Bidder. CHANGES WITHOUT A SIGNATURE WILL LEAD TO THE DISQUALIFICATION OF THE BID SUBMITTED.

All cables must be neatly glanded, lugged, terminated, and marked where required

Cable rack installation to be firm and permanent, supported from the ground or the existing structure at a height not less than 0,5m and capable of supporting all the cables to be installed

All new cable racks shall have at least 50% available free space for future installations/expansion